

<b>Name:</b>	<i>Occupational Safety and Health for the Fire Service</i>
<b>Course Description:</b>	This course introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Topics include risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization.
<b>Prerequisite:</b>	None.
<b>Outcomes:</b>	<ol style="list-style-type: none"> <li>1. Describe the history of health and safety programs.</li> <li>2. Identify occupational health safety programs in industry today.</li> <li>3. Identify occupational health and safety programs for the emergency services.</li> <li>4. Describe the distinction between standards and regulations.</li> <li>5. Identify federal regulations that impact on health and safety programs.</li> <li>6. Identify the standards that impact on occupational health and safety.</li> <li>7. Identify the concepts of risk identification and risk evaluation.</li> <li>8. Describe the considerations for safety in fire stations and emergency response vehicles.</li> <li>9. Describe the components of an effective response safety plan.</li> <li>10. Describe the components of the pre-incident planning process.</li> <li>11. Describe the considerations for safety while training.</li> <li>12. Define the value of personal protective equipment.</li> <li>13. Describe the components of accountability system in emergency operations.</li> <li>14. Define incident priorities and how they relate to health and safety.</li> <li>15. Describe the relationship of incident management as it related to health and safety.</li> <li>16. Describe the methods of controlling hazards associated with responding to EMS, hazmat, and technical rescue incidents.</li> <li>17. Explain the need for and the process used for post-incident analysis.</li> <li>18. Describe the components and value of critical incident management programs.</li> </ol>

<b>Outcomes:</b>	<p>19. Describe the responsibilities of individual responders, supervisors, safety officers, and incident commanders, safety program managers, safety committees and fire department managers as they relate to health and safety programs.</p> <p>20. Describe the components of a wellness/fitness plan.</p> <p>21. Identify and analyze the major causes involved in line of duty firefighter deaths related to health, wellness, fitness and vehicle operations.</p>
<b>Suggested Student Texts:</b>	<p><i>Emergency Incident Risk Management</i>; Jonathan Kipp and Murry Loflin Van Nostrand Reinhold, 1996</p> <p><i>Fire Department Safety Officer</i>; David W. Dodson, Thomson, 1998</p> <p><i>Health and Safety Officer and Incident Safety Officer and Health and Safety Officer</i>; National Fire Academy</p> <p><i>Occupational Safety and Health in the Emergency Service</i>; James S. Angle, Thomson, Oct. 2004</p> <p><i>Emergency Rehab</i>; Brady</p> <p><i>The Fire and EMS Department Safety Officer</i>; Gordon Sachs, Prentice Hall, 2001</p>
<b>Supporting References/Research for Faculty and Students:</b>	<p><b>U.S. Fire Administration</b></p> <p><u>Publications:</u>  <a href="http://www.usfa.fema.gov/applications/publications">http://www.usfa.fema.gov/applications/publications</a></p> <p>See EMS, Fire Service Administration, Fire Service Operations, Hazardous Materials, Health and Safety, Rescue, Terrorism, Wildfire</p> <p><u>Applied Research:</u>  <a href="http://www.usfa.fema.gov">http://www.usfa.fema.gov</a></p> <p><u>Research Reports:</u>  <a href="http://www.usfa.fema.gov/research">http://www.usfa.fema.gov/research</a></p> <p><u>Technical Reports:</u>  <a href="http://www.usfa.fema.gov/applications/publications/browse.cfm?mc=29">http://www.usfa.fema.gov/applications/publications/browse.cfm?mc=29</a></p> <p><u>Topical Fire Research Series:</u>  <a href="http://www.usfa.fema.gov">http://www.usfa.fema.gov</a></p> <p><u>Learning Resource Center:</u>  <a href="http://www.lrc.fema.gov">http://www.lrc.fema.gov</a></p> <p><b>National Institute for Standards and Technology</b>  <a href="http://www.fire.nist.gov">http://www.fire.nist.gov</a>: Publications</p> <p><b>References</b></p> <p><i>NFPA Standards 1500, 1521, 1561 and 1581</i></p> <p><u>Lessons Learned Information Sharing:</u>  <a href="https://www.llis.dhs.gov/member/secure/index.cfm">https://www.llis.dhs.gov/member/secure/index.cfm</a></p> <p><b>Current Events/News</b>  <a href="http://www.firehouse.com">http://www.firehouse.com</a></p>

	<a href="http://www.fireengineering.com">http://www.fireengineering.com</a> <a href="http://www.withthecommand.com">http://www.withthecommand.com</a>
<b>Assessment:</b>	Students will be evaluated for mastery of learning objectives by methods of evaluation to be determined by the instructor.
<b>Points of Contact:</b>	Gail Ownby-Hughes University of Alaska, Anchorage 907) 786-6476, <a href="mailto:aftgo@uaa.alaska.edu">aftgo@uaa.alaska.edu</a> Travis Ford Volunteer State Community College, C/O Nashville Fire Department, (615) 862-5422 <a href="mailto:travis.ford@nashville.gov">travis.ford@nashville.gov</a> <b>Revision: 11/05</b>

## **Course Outline**

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### ***Occupational Safety and Health for the Fire Service***

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- I. Introduction
  - A. History of Occupational Safety and Health in Industry
  - B. History of Occupational Safety and Health in Emergency Service Organizations
  - C. Identification of Safety Problems
  - D. Review of National Injury Statistics
  - E. National, State, and Private Organizations Involved with Occupational Safety and Health
- II. Safety-Related Regulations and Standards
  - A. Regulations vs. Standards
  - B. Federal Regulations Pertaining to Occupational Safety and Health
  - C. NFPA Standards Pertaining to Occupational Safety and Health
- III. Risk Management
  - A. Risk Evaluation
  - B. Risk Control
- IV. Safety Program Development and Management
  - A. Essential Elements
  - B. Setting Goals and Objectives
  - C. Cost Benefit Analysis
  - D. Training
  - E. Developing Standard Operating Procedures
  - F. Collecting Data
  - G. Publishing Health and Safety Information
  - H. Evaluating the Results
- V. Employee Fitness/Wellness Programs
  - A. Hazards Faced
  - B. Organizational Development
  - C. Employee Acceptance
  - D. Medical Examinations
  - E. Physical Fitness

VI. Pre-incident Safety

- A. Hazards Faced
- B. Station Safety
- C. Apparatus Safety
- D. Response Safety
- E. Pre-incident Planning

VII. Safety at Fire Emergencies

- A. Hazards Faced
- B. Incident Priorities and Safety
- C. Incident Management Systems
- D. Accountability
- E. Rapid Intervention
- F. Rehabilitation

VIII. Safety at EMS Emergencies

- A. Hazards Faced
- B. Infection Control
- C. Personal Protective Equipment
- D. Incident Management Systems
- E. Scene Safety

IX. Safety at Specialized Incidents

- A. Hazards Faced
- B. Safety at Hazards Materials Incidents
- C. Safety at Technical Rescue Incidents
- D. Safety at Terrorism Incidents
- E. Safety at Natural Disasters

X. Post-incident Safety Management

- A. Incident Termination
- B. Post-Incident Analysis
- C. Critical Incident Stress Management

XI. Personal roles

- A. Individuals
- B. Supervisors
- C. Managers
- D. Incident Commanders
- E. Safety Officers
- F. Safety Program Managers
- G. Safety Committees

XII. Making It Happen

- A. Determining, Measuring, and Showcasing the Benefits
- B. Selling Management
- C. Selling Employees

IV. Negligence

V. Judicial System

- A. The Court System
- B. U.S. Supreme Court
- C. Special Courts
- D. Local Courts
- E. Penalties